

New Scientific Opportunities with Advanced Detectors

LBNL Building 2: Conference Room 400F (4th floor bldg 2)

In the FY08 president's budget, funds have been requested for development of advanced detectors for light sources. The needs of the whole community have been previously discussed at two national workshops in 2000 and 2005 and the resulting consensus led to the requested program. In this workshop we would like to focus specifically on the needs of the ALS user community. The timing is also good for this discussion as Peter Denes, formerly Engineering division deputy for electronics, software and instrumentation has joined ALS as the new division deputy for engineering, and has been tasked with guiding a new ALS detector development program.

The workshop will be organized around three sessions 1) collecting scientific needs and how detector advances could enable them, 2) a brief overview of detector technologies, with an emphasis on LBNL capabilities and 3) open forum discussion. A major goal of this workshop is to derive a science-driven, prioritized detector program, which would be used as the basis of our response to DOE BES for the proposed program for advanced detectors.

To make a success of this workshop, we need representation at the meeting and in its organization from any members of the user community who have needs for advanced detector technologies on their experimental end stations. If you are interested in participating, please contact Peter Denes at PDenes@lbl.gov or Howard Padmore at HAPadmore@lbl.gov.

LBNL Building 2: Conference Room 400F (4th floor bldg 2)

Friday Oct 5th

13.00 P. Denes Welcome

Technologies for Advanced Detectors

13.15 S. Holland CCDs
13.45 M. Garcia-Sciveres Hybrid pixel array detectors
14.15 O. Siegmund Channel-plate based detectors
14.45 P. Denes Active pixel detectors

15.15 Break

15.30 H. Spieler Detector systems

Applications and Needs (15 min talks: 15 min discussion)

16.00 E. Rotenberg ARPES and needs for MAESTRO
16.30 G. Lebedev TOF-based photoemission
17.00 Vendor reception: food / drinks on the ALS patio

Saturday Oct 6th

8.30 S. Kevan Soft x-ray speckle and needs for COSMIC
9.00 S. Marchesini Coherent soft x-ray imaging and needs for COSMIC
9.30 P. Heimann Ultrafast x-ray diffraction and spectroscopy

10.00 Break / discussions

10.30 P. Fernandez Detector plans at the APS
11.00 A. MacDowell X-ray tomography
11.30 N. Tamura X-ray micro-diffraction

ALS Needs and Priorities

12.00 P. Denes Round table discussion
1.00 Close

